

1. (Amended) A method for purification of a nitrous oxide gas containing O₂, said method comprising:

feeding said nitrous oxide gas and a reducing agent selected from the group consisting of hydrogen, carbon monoxide, ammonia and mixtures thereof into a de-oxidation reactor;

performing de-oxidation by reacting said reducing agent with O₂ using a de-oxidation catalyst to form an inert, in order to deplete said O₂ in said nitrous oxide gas, while limiting the amount of nitrous oxide removed from said nitrous oxide gas.

2. (Amended) A method according to Claim 1, wherein said reducing agent is hydrogen.

3. (Amended) A method according to Claim 1, wherein said inert comprises water or carbon dioxide.

4. (Amended) A method according to Claim 1, wherein said nitrous oxide gas further comprises NO_x, nitrogen, carbon monoxide, carbon dioxide or organic compounds.

5. (Amended) A method according to Claim 1, wherein said off-gas comprises between 1000 ppmv and 10 vol.% O₂, and between 100 ppmv and 1% NO_x.

6. (Amended) A method according to Claim 1, wherein up to 99 vol.% of said O₂ is removed from said nitrous oxide gas.

7. (Amended) A method according to Claim 1, wherein said de-oxidation catalyst is selected from the group consisting of palladium, platinum and mixtures thereof.

8. (Amended) A method according to Claim 1, wherein said selective catalytic reduction catalyst is selected from the group consisting of oxides of vanadium, titanium and mixtures thereof.

18. (Amended) A method according to Claim 1, wherein prior to said selective catalytic reduction, an oxygen containing gas is passed over said selective catalytic reduction catalyst.

19. (Amended) A method for purification of a nitrous oxide gas comprising;
feeding an O₂ and NO_x containing nitrous oxide gas and ammonia or a precursor thereof into a reactor system;
performing selective catalytic reduction by reacting said ammonia or precursor thereof with NO_x in said nitrous oxide gas using a selective catalytic reduction catalyst;
feeding a reducing agent into said reactor system;
performing de-oxidation by reacting said reducing agent with O₂ in said nitrous oxide gas using a de-oxidation catalyst.

20. (Amended) A method according to Claim 19, wherein said nitrous oxide gas further comprises NO_x, nitrogen, carbon monoxide, carbon dioxide or organic compounds.

22. (Amended) A method according to Claim 19, wherein said de-oxidation catalyst is selected from the group consisting of palladium, platinum and mixtures thereof.

23. (Amended) A method according to Claim 19, wherein said selective catalytic reduction catalyst is selected from the group consisting of oxides of vanadium, titanium, and mixtures thereof.

26. (Amended) A method according to Claim 19, wherein prior to said selective catalytic reduction, an oxygen containing gas is passed over said selective catalytic reduction catalyst.

27. (Amended) A method according to Claim 19, wherein recovery of nitrous oxide from said nitrous oxide gas utilizing said reactor system is greater than 95%.

28. (Amended) A method for purification of a nitrous oxide gas comprising;
feeding an NOx containing nitrous oxide gas and ammonia or a precursor thereof into a
reactor system;
performing selective catalytic reduction by reacting said ammonia or precursor thereof
with NOx in said nitrous oxide gas using a selective catalytic reduction catalyst;
while limiting the amount of nitrous oxide removed from said nitrous oxide gas.

29. (Amended) A method according to Claim 28, wherein said nitrous oxide gas further
comprises nitrogen, carbon monoxide, carbon dioxide or organic compounds.

Clean copies of the foregoing sections and claims are attached hereto as well as a marked
up version of the claims showing the changes that have been made.